

OIB - HU-25C Guardian 07/15/16 Science Report

Aircraft:

[HU-25A Guardian #525](#) ([See full schedule](#))

Date:

Friday, July 15, 2016

Mission:

OIB

Mission Location:

Arctic Ocean

Mission Summary:

This line was designed to sample ice in the northwestern area of the aircraft range and take advantage of cloud free conditions on the back end of a passing front. The ice over the line was primarily consolidated pack ice with many melt ponds, numerous floes with brown discoloration due to biological activity were also noted. We encountered clouds upon descent to the first line so headed up to 9000 feet to look for breaks in the clouds since no usable data was being taken. About ¾ of the way through the first line we spotted a break in the clouds and were able to fly in relatively clear skies. Towards the end of the line we encountered a sharp increase in temperature and a short period of light rain. On the second line we encountered sunny skies and a mixture of consolidated and unconsolidated pack ice. We broke off the line about 25 nm early to head into more consolidated pack ice. Good data was obtained for the last ¾ of the third data line before we spotted the same cloud system we encountered at the beginning of the mission. We then turned south from the planned flight line to continue obtaining good data over the consolidated pack until it was time to return home.

Overall this was a successful flight with no data loss to clouds once we maintained low altitude flight.

Data volumes

ATM: 4.5 Gb


FLIR: 5 Gb

DMS: 23.6 Gb, 3399 frames

Submitted by:

Nathan T. Kurtz on 07/15/16

File:

 [7_15_map.pdf](#)

Related Flight Report:

HU-25A Guardian #524 07/15/16

Flight Number:

OIB 2016 on HU25A #7

Payload Configuration:

ATM and DMS

Nav Data Collected:

No

Total Flight Time:

3.7 hours

Submitted by:

Richard Yasky on 07/16/16

Flight Segments:

From:	PABR	To:	PABR
Start:	07/15/16 14:54 Z	Finish:	07/15/16 18:36 Z
Flight Time:	3.7 hours		
Log Number:	16F003	PI:	Nathan Kurtz
Funding Source:	Thomas Wagner - NASA - SMD - ESD Cryosphere & International Polar Year		
Purpose of Flight:	Science		

Comments:

Third sea ice science flight from Barrow. Targeted the most westerly triangle track to find clear area in front of an approaching warm front. Found clear air mass with 40-50 knot winds at 1500 feet about 80 miles into first science leg. Good data collection over pack ice for well over an hour. Turned back south east prior to completing third leg to continue science collection. Returned to low ceilings and visibility requiring two approaches to land.

Flight Hour Summary:

	16F003
Flight Hours Approved in SOFRS	121.25
Total Used	126.9
Total Remaining	-5.65

16F003 Flight Reports

Date	Flt #	Purpose of Flight	Duration	Running Total	Hours Remaining
06/29/16	OIB 2016 on HU25A ICF	Science	2	2	119.25
07/11/16	OIB 2016 on HU25A #1	Ferry	2.6	4.6	116.65
07/11/16	OIB 2016 on HU25A #2	Ferry	2.5	7.1	114.15
07/11/16 - 07/12/16	OIB 2016 on HU25A #3	Ferry	2.2	9.3	111.95
07/12/16 - 07/13/16	OIB 2016 on HU25A #4	Ferry	2.6	11.9	109.35
07/13/16	OIB 2016 on HU25A #5	Science	3.4	15.3	105.95
07/14/16	OIB 2016 on HU25A #6	Science	3.5	18.8	102.45
07/15/16	OIB 2016 on HU25A #7	Science	3.7	22.5	98.75
07/19/16 - 07/20/16	OIB 2016 on HU25A #8	Science	3.6	26.1	95.15
07/20/16	OIB 2016 on HU25A #9	Science	3.4	29.5	91.75
07/21/16	OIB 2016 on HU25A #10	Science	3.6	33.1	88.15
07/22/16	OIB 2016 on HU25A #11	Ferry	3.9	37	84.25
07/22/16	OIB 2016 on HU25A #12	Ferry	3.2	40.2	81.05
07/22/16	OIB 2016 on HU25A #13	Ferry	2.1	42.3	78.95
08/23/16	OIB 2016 on HU-25 #14	Science	2.3	44.6	76.65
08/25/16	OIB 2016 on HU-25 #15	Ferry	3.2	47.8	73.45
08/25/16	OIB 2016 on HU-25 #16	Ferry	2.2	50	71.25
08/27/16	OIB 2016 on HU-25 #17	Science	3.7	53.7	67.55
08/29/16	OIB 2016 on HU-25 #18	Science	3.8	57.5	63.75
08/29/16	OIB 2016 on HU-25 #19	Science	3.5	61	60.25
09/01/16	OIB 2016 on HU-25 #20	Science	3.4	64.4	56.85

09/02/16	OIB 2016 on HU-25 #21	Science	3.8	68.2	53.05
09/02/16	OIB 2016 on HU-25 #22	Science	3.8	72	49.25
09/05/16	OIB 2016 on HU-25 #23	Science	0.6	72.6	48.65
09/06/16	OIB 2016 on HU-25 #24	Science	3.5	76.1	45.15
09/09/16	OIB 2016 on HU-25 #25	Science	3.5	79.6	41.65
09/09/16	OIB 2016 on HU-25 #26	Science	3.5	83.1	38.15
09/10/16	OIB 2016 on HU-25 #27	Science	3	86.1	35.15
09/11/16	OIB 2016 on HU-25 #28	Science	3.9	90	31.25
09/11/16	OIB 2016 on HU-25 #29	Science	3.7	93.7	27.55
09/12/16	OIB 2016 on HU-25 #30	Science	3.3	97	24.25
09/12/16	OIB 2016 on HU-25 #31	Science	2.7	99.7	21.55
09/13/16	OIB 2016 on HU-25 #32	Science	4	103.7	17.55
09/13/16	OIB 2016 on HU-25 #33	Science	2.9	106.6	14.65
09/15/16	OIB 2016 on HU-25 #34	Science	3.7	110.3	10.95
09/16/16	OIB 2016 on HU-25 #35	Ferry	2.4	112.7	8.55
09/16/16	OIB 2016 on HU-25 #35	Ferry	1.7	114.4	6.85
09/16/16	OIB 2016 on HU-25 #35	Ferry	1.7	116.1	5.15
09/17/16	OIB 2016 on HU-25 #38	Ferry	2.8	118.9	2.35
09/17/16	OIB 2016 on HU-25 #38	Ferry	2.9	121.8	-0.55
09/19/16	OIB 2016 on HU-25 #40	Ferry	2.5	124.3	-3.05
09/19/16	OIB 2016 on HU-25 #40	Ferry	2.6	126.9	-5.65

Flight Reports began being entered into this system as of 2012 flights. If there were flights flown under an earlier log number the flight reports are not available online.

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